ABSTRACT

OBJECTIVES: To find out the prevalence of metabolic syndrome (MBS) in women with PCOS and assess their strength of association.

MATERIALS AND METHODS : Apparently healthy 200 non-pregnant females 15-35 years with normal thyroid profile and prolactin levels, having documented features of PCOS (according to Rotterdam criteria, 2003) are selected from those attending the OPD of our hospital and assessed for presence of metabolic syndrome and clinical or laboratory evidence of hyperandrogenism (Ferrymen -Galaway score ≥ 7 is taken as cut off value for assessing hirsutism and elevated free testosterone > 2.57pg/ml). They are sub-divided in two age groups; 15-25years [Group 1] and 26 -35 years [Group 2] for proper age matched association. Each patient had undergone a detailed clinical examination and a relevant laboratory evaluation. Metabolic syndrome was diagnosed according to NCEPATP III 2001 criteria for the presence of at least three of the five criteria. The National Cholesterol Education Program's Adult Treatment Panel III (NCEPATP III) in 2001,8 defines metabolic syndrome (MBS)as the presence of at least three of the following five criteria.1]. Abdominal/central obesity (waist circumference >88cms), 2] Serum triglycerides 150mg/dl or greater, 3]

Serum HDL cholesterol less than 50 mg/dl, 4] BP 130/85 or greater, 5] Fasting blood sugar (FBS) 110mg/dl or more. Ultrasonography– Trans abdominal (TAS) and or Trans vaginal (TVS) is done. unmarried women subjected to TAS. Blood samples for fasting blood sugar, fasting Insulin (FI-normal values ranges from2.6- 24.9μU/ml), free Testosterone (normal range between0.15- 2.57pg/ml), TSH and Prolactin (for exclusion)

RESULTS: *65 subjects out of 200* (32.5%) met criteria for the MBS. 35(71.5%) belonged to 26-35 years and 30(20.7%) in 15-25 years. Prevalence of waist circumference > 88 cm were noted in 72.5%, HDL cholesterol< 50 mg/dl in 48%, triglycerides ≥ 150 mg/dl in 34.5%, BP ≥130/85 mm Hg in14.5% and FBS≥ 110 mg/dl in 9.5%. Women with higher insulin resistance and free testosterone levels significantly (P<0.01) correlated with higher prevalence of MBS.

CONCLUSION: The metabolic syndrome and its individual components are common in PCOS, particularly among women with hyperinsulinemia and hyperandrogenism.

KEY WORDS : *PCOS,* metabolic syndrome, hyperinsulinemia.